## Claims

We claim:

5

15

1. A method for in-situ stimulation of a methane production from a methanebearing subterranean coal seam, said method comprising:

A first step of opening flow paths in a methane-bearing subterranean coal seam by pressing a predetermined gas into a wellbore intersecting said subterranean coal seam;

a second step comprising a shut-in period of pre-determined duration whereby said predetermined gas displaces methane from said subterranean coal seam thereby inducing matrix shrinkage in said subterranean coal seam, resulting in enhanced intervening fractures, and;

- a third step comprising pressing of a fracture treatment containing proppant into said enhanced intervening fractures.
- 20 2. The method of claim 1 wherein said predetermined gas is comprised substantially of nitrogen.